Septic Tank Rebate Program: Getting Started

- Please complete the pre-survey prior to viewing this presentation.

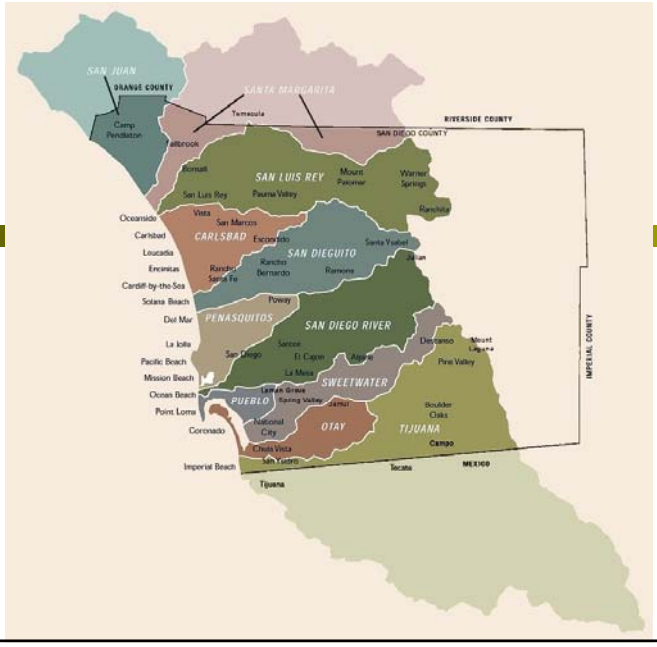
- After viewing this presentation, complete the post-survey.
- Follow the directions at the bottom of the post-survey to qualify for the Septic Tank Rebate!
- Good luck!

We all live in a watershed.

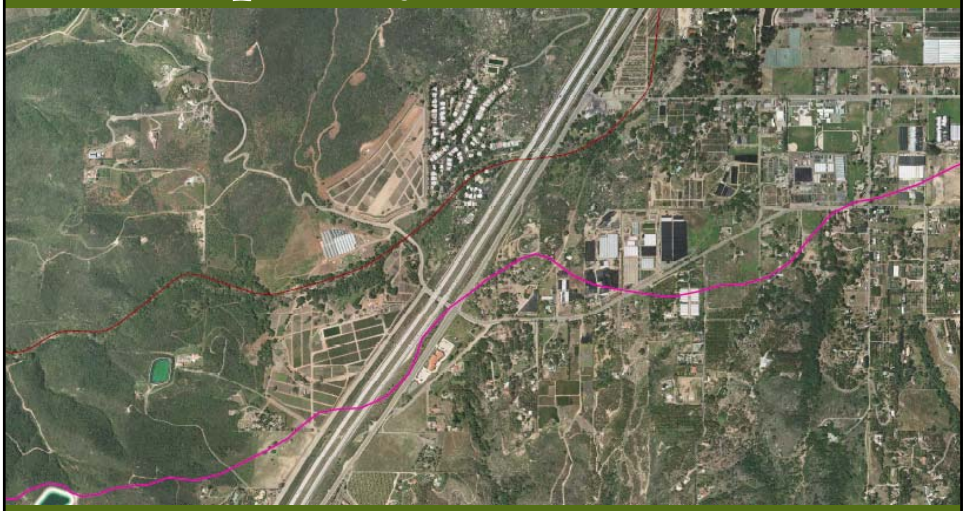
- Where ever you live in San Diego County (or elsewhere!) you live in a watershed. A watershed is an area of land that drains surface water to a common water body.

- When it rains, surface water flows into creeks, rivers or storm drains. Stormwater runoff can carry pollutants downstream, without the benefits of being treated.
- Stormwater is not treated. Polluted runoff can degrade water quality in reservoirs, creeks, lagoons and the ocean.
- What is your watershed? A map follow on the next slide.

San Diego Watersheds



Septic System Overview



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What Will Be Covered?

- Basic septic system design and function
- Septic system maintenance including pumping
- System failures and repairs
- Total Maximum Daily Load (TMDL) program for Rainbow Creek watershed
- Assembly Bill 885 update
- Alternative septic systems
- Questions

What Is a Septic System

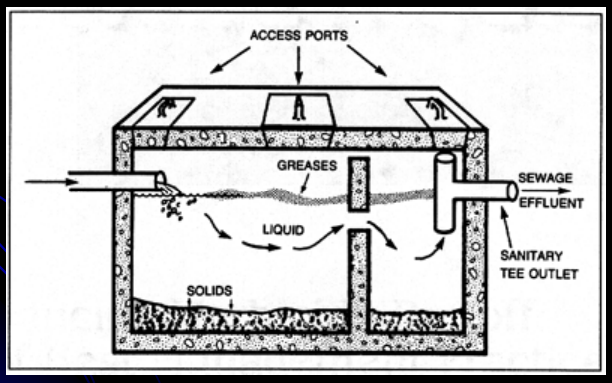
- A subsurface sewage disposal system which uses a combination of a septic tank and a effluent dispersal mechanism.
- A two-chamber septic tank is used to separate and accumulate solid matter. The solid matter settles and is decomposed by anaerobic bacteria (primary treatment). Clear effluent then passes to the dispersal mechanism, which may be leach lines or seepage pits (secondary treatment).

Typical Concrete Septic Tank

Septic Tank Cross-section

Primary Treatment

- Solid materials settle to the bottom forming a sludge layer
- Lighter greases and fats float to the top forming a scum layer
- Clarified liquid (sewage effluent) flows out of the tank.



Conventional Disposal Field

Secondary Treatment

- As effluent enters and flows through the soil, many of the bacteria that can cause diseases are filtered out.
- Viruses are adsorbed by the soil until they are destroyed.
- The soil can also retain certain chemicals, including phosphorus and some forms of nitrogen.
- Nitrogen removal by denitrification, assimilation, ammonification 10 – 50%

Leach Lines Installed On Contour

Tank Connected to Leach Line

Septic System Maintenance

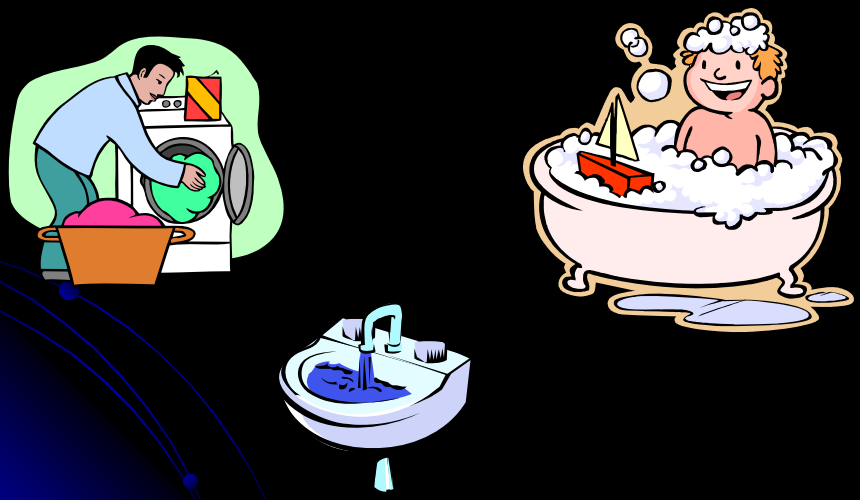
What can (and can't) go into a septic tank?

- Domestic waste only - never put chemicals, industrial waste, solvents, paint, pesticides or fertilizers into a septic tank
- Limit use of laundry bleach
- No non-biodegradables
- Limit use of garbage disposal, toilet paper only (no paper towels, etc)
- No oils and fats down the drain
- Health Dept does not recommend commercially sold additives

Maintenance (cont.)

- Divert surface flow away from leach field
- Don't overload system
- Limit water usage and repair all leaks (leaky toilets will cause leach field to fail)
- Don't build or drive over leach field
- Keep maintenance records
- Know location of system
- Pump your tank

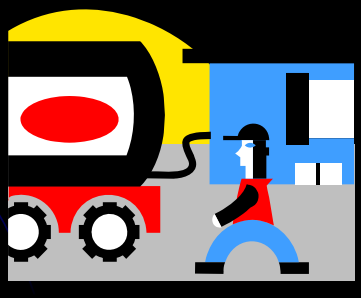
Use Less Water!!!



SEPTIC TANK PUMPING

Why Pump Your Tank?

- Removes the accumulated sludge in the bottom of the tank to increase its effective volume
- Increases time sewage has to settle out and be treated
- Allows a leach field to dry out after a failure



Septic Tank Pumping Frequency

	Household size - Number of Occupants									
	1	2	3	4	5	6	7	8	9	10
Tank Size	YEARS									
1000 gal	12.4	5.9	3.7	2.6	2.0	1.5	1.2	1.0	0.8	0.7
1250 gal	15.6	7.5	4.8	3.4	2.6	2.0	1.7	1.4	1.2	1.0
1500 gal	18.9	9.1	5.9	4.2	3.3	2.6	2.1	1.8	1.5	1.3
2000 gal	25.4	12.4	8.0	5.9	4.5	3.7	3.1	2.6	2.2	2.0

Septic System Failure

- Plumbing runs very slowly and eventually sewage backs up into house
- Sewage surfaces from tank lids
- Sewage surfaces in leach field
- A *technical failure* occurs when insufficient separation to groundwater results in inadequate treatment

Leach Line Failure

Effluent Seeping Out of Cut Bank

Reserve Requirement

- The average life expectancy of a septic system is 25 years.
- Each lot in San Diego county with a septic system must have a designated area to replace the dispersal field when it fails. This area is known as the “reserve area”. No structures or hardscape may be built in this area.

Standard Septic System Repairs

- A repair to a failing system usually consists of a 200'-300' addition to the existing leach field. Cost $15-25/ foot
- County Code requires a failing system to be repaired within 30 days.
- All sewage effluent must remain underground. If a septic system fails, the septic tank should be pumped as necessary to keep sewage underground until repairs can be made. Limit water usage.

Alternative Treatment Systems

- Provide a higher level of treatment of wastewater (advanced treatment)
- Use with conventional system designs such as standard septic tanks and disposal fields
- In the future, may allow for development of lots that cannot support a conventional system but not approved for new construction in SD County at this time.

Photo courtesy of Orenco Systems, Inc.

Alternative Septic Systems (cont.)

- Due to high GW levels in Rainbow Valley advanced treatment may be required with some future repairs
- Reduce pollutants and/ or increase separation to groundwater to allow adequate secondary treatment
- Require monitoring and more frequent maintenance
- More expensive than conventional systems

Alternative Systems (cont.)

Mound System

SUMMARY

- Septic system – tank connected to a leach field
- You can extend the life of your system with proper care and maintenance
- Maintenance
  - don't overload your system
  - don't harm the bacteria (they are your friends)
  - pump your tank regularly

Septic Tank Rebate Program: Getting Started

- After reviewing this presentation, please complete the post-survey. Follow the instructions on submitting the pre- and post-surveys as you are now qualified to receive the Septic Tank Rebate!
- To complete your rebate process, contact Mission Resource Conservation District at (760) 728-1332.